

# **An Evaluation of Business Environmental Index System: Future Direction for SMEs in China**

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## **Abstract**

**Purpose:** This paper aims to build a business environment evaluation index system for districts and counties in Wenzhou and improve the city's comprehensive competitiveness.

**Design/methodology/approach:** The utility value method is adopted in the dimensionless process to analyze the business environment. Data were collected from Wenzhou Statistical Yearbook 2019.

**Findings:** Yueqing ranked 1st in the business environment and has accelerated the development of a business environment and increased the efficiency of government services in order to establish a benchmark for the high-quality development of Wenzhou's business environment.

**Research limitations/implications:** The establishment of the model has a strong subjective consciousness, further research would be valuable with long-term investigation and test for the influencing factors.

**Practical implications:** The business environment evaluation index system evaluates the business environment of four districts, two county-level cities, and five counties of Wenzhou.

**Originality/value:** The business environmental index system provides suggestions for further optimizing the city's business environment, and promotes its steady economic development.

**Keywords:** Business environment, SMEs, China

## **Introduction**

China's economy has transitioned from rapid growth over the last two decades to a current stage of targeted high-quality and high-value development. Enterprises, particularly SMEs, urgently need a good business environment to support high-quality development in China (Xie 2017; Yu et al.2020). The business environment is a productive force. A good business environment plays an essential role in various aspects of a country or a region, such as economic development, market vitality, technological innovation, entrepreneurship, talents introduction (Stern 2002; World Bank 2004; Xu 2011; Möller et al. 2020; Qiang et al.2021). The World Bank conducts yearly Doing Business (DB) surveys at the national level and the Enterprise Survey (ES), which covers around 130 countries at the business level. Optimization of the business environment serves as the new strategy for national economic development and the new target of streamlining administration, strengthening regulation and improving services (Vo et al. 2020). In promoting comprehensively deep reform and opening wider to the outside

world, the central China government has mentioned building a good business environment many times. In 2019, in the State Council Meeting of the legislative work, Prime Minister Li Keqiang first proposed formulating regulations for optimizing the business environment to accelerate the construction of the business environment. In October 2019, the State Council issued Regulations on Optimizing the Business Environment, which provides an institutional guarantee for improving the business environment in all country regions (Song et al.2018). Optimizing the business environment has attracted the great attention of society. Firm performance is crucially dependent on certain fundamental features of the business environment, such as limiting government expropriation, providing primary and contemporary infrastructure, facilitating access to finance, and clustering suitably sized enterprises(Qiang et al.2021). Wenzhou is the pioneer of China's private economy, and 99% of enterprises in Wenzhou are small and medium enterprises. Since the reform and opening up, Wenzhou has taken the lead in market-oriented reform, boldly breaking the constraints of the planned economy system, vigorously developing the SMEs, promoting the vivid practice of the socialist market economy in China, which made Wenzhou become the top in many areas in China. Therefore, the construction and development of the business environment of districts and counties in Wenzhou play a crucial role in the high-quality economic development of Wenzhou(Zhang et al.2018).

The concept of the business environment has become popular recently in China. Because of the difference in various provinces' social, economic and cultural development, it has not yet formed a national business environment index system applied widely in China. Therefore, this paper aims to design a business environment index system for SMEs in Wenzhou and evaluates the business environment in districts and counties of Wenzhou. The evaluation is expected to provide a basis for further decision-making by SMEs and the government and ultimately enhance the competitiveness of SMEs. As a result, SMEs can play a more significant role in promoting Wenzhou's economic transformation and ensure the smooth progress of Wenzhou's economic reform and development.

### **Literature Review**

The literature based on the Doing Business statistics frequently examines particular aspects of the business environment in isolation or includes the aggregate DB index(Botero et al., 2004; Djankov et al., 2002, 2003; Djankov et al., 2007, and Pham 2010). The world's most widely accepted business environment index system is established by the business environment team of the World Bank. Since 2003 when the World Bank first released the Doing Business report, its assessment system has been updated to include 11 first-level indicators and 43 second-level indicators used to assess a country or region( World Bank 2005). The World Economic Forum (WEF) has developed its Global Competitiveness Indices based on WEF's Executive Opinion Survey conducted in over 140 countries collaborating with local partner institutes. Rodrik et al. (2004) studied the influencing factors of the business environment from the aspects of laws and regulations, economic and trade, the concept of the rule of law, government style, administrative efficiency, and financial system. Civelek et al. (2016) discusses the process of identifying and defining the critical elements that shape the business environment and the analysis of their interconnections and measurement of their influence. Society, financial markets, banks, and business risks determine the quality of the business environment.

The concept of the business environment has been in China for a relatively short period. Due to the differences in the degree of social, economic and cultural development of various provinces, a set of widely recognized business environment indicator systems suitable for the whole country has not yet been formed. Yang (2015) obtained the original data by sending questionnaires to senior executives in Shandong, Jiangsu, Zhejiang and Guangdong provinces and constructed an evaluation system using the Factor Analysis Method. Yang Tao concluded

that the business environment of the four provinces has apparent differences in market development but no differences in innovation environment and policy environment. Hu et al. (2015) built a business environment index system that included internationalization, marketization and legalization as the first-level evaluation index system for Guangdong province. Qin (2018) built a business environment index system for prefecture-level cities in Guangdong province using the Entropy Value Method and PCA (Principal Component Analysis). This system included soft environment, market environment, business cost, urban infrastructure, social service environment and ecological environment. Man et al. (2018) compared domestic and foreign business environment index systems and pointed out that China should consider the actual conditions of specific countries or regions when establishing a business environment evaluation system, rather than blindly copying the system of the World Bank. Li et al. (2019) established a business environment index system, including governmental efficiency, human resource, financial services, public service, market environment and innovation environment as the first-level indicators and ranked the business environment for 290 regions from 2017 to 2018. Yuan et al. (2018) surveyed the business environment in different counties in China. They built a business environment index system for the county level, which included seven first-level indicators by using Analytic Hierarchy Process and Expert Estimation Method. To combine Chinese characteristics and reflect the characteristics of the county, China Center for Information Industry Development has established a set of evaluation systems for the county's business environment and released the "2019 top 100 county-level business environments". CHINAXIAOKANG.Com has also obtained the ranking of "China's top 100 business environments of districts and counties".

Most scholars' research on the business environment of small and medium enterprises mainly focuses on a country or a province, and however, there are few articles on the business environment of small and medium enterprises from a region. This paper provides a theoretical index evaluation system for the Wenzhou government to manage SMEs by studying the business environment in the Wenzhou area, thereby promoting the high-quality development of Wenzhou's private economy.

### Hypothesis Development

This paper summarizes Wenzhou's business environment index system with "two aspects, seven first-level indicators, and 27 second-level indicators" according to Wenzhou's practical business environment construction. Two aspects are "hard environment" and "soft environment," according to the classification from WANB Institute. The government currently emphasizes strengthening the construction of a soft business environment. Thus, this paper sets the "soft environment" weight at 60% and the "hard environment" at 40%. The seven first-level indicators summarize as four "hard environment" indicators and three "soft environment" indicators. (Li et al., 2019) The four "hard environment" indicators include economic strength, market vitality, infrastructure, and ecological environment. At the same time, the three "soft environment" indicators include governmental efficiency, technological innovation, human resources. On this basis, this paper selects various secondary indicators referring to the data in the Wenzhou Statistical Yearbook 2019 and Wenzhou official website. It then establishes the Wenzhou business environment index system. The specific system is shown in the table 1 below.

**Table 1. Wenzhou Business Environment Evaluation System**

Aspects	First-level Indicators	Second-level Indicators	Data Source
Hard Environment	Economic Strength (0.14)	Total GDP	Statistical Yearbook
		GDP per capita	Statistical Yearbook
		Proportion of output value of tertiary industry in GDP	Statistical Yearbook

	Market Vitality (0.14)	Number of Industrial Enterprises above Designated Size	Statistical Yearbook
		New fixed assets in the whole year	Statistical Yearbook
		Retail sales of social consumer goods	Statistical Yearbook
		Private financing efficiency	Statistical Yearbook
		Overall financing efficiency	Statistical Yearbook
	Infrastructure (0.06)	Proportion of Internet broadband access	Statistical Yearbook
		Total mileage of roads	Statistical Yearbook
		Number of hospital beds	Statistical Yearbook
	Ecological Environment (0.06)	Green coverage of built-up area	Statistical Yearbook
		Good air quality days	Statistical Yearbook
		Industrial wastewater discharge	Statistical Yearbook
		Energy consumption per 10,000 yuan of GDP	Statistical Yearbook
Soft Environment	Governmental Efficiency (0.18)	Number of open government information	Official Website
		Number of administrative services	Official Website
		General public budget revenue	Statistical Yearbook
		Number of official micro-blog information	Official Website
	Technological Innovation (0.24)	Education expenditure	Statistical Yearbook
		Science and technology expenditure of local finance	Statistical Yearbook
		R&D expenditure of Enterprises above Designated Size	Statistical Yearbook
		Full time equivalent of R & D personnel in Enterprises above Designated Size	Statistical Yearbook
		Number of patent applications authorized	Statistical Yearbook
	Human Resources (0.18)	Population growth	Statistical Yearbook
		Average wage level	Statistical Yearbook
		Number of practicing (assistant) doctors	Statistical Yearbook

## Methods

### *Data Sources and Calculation Methods*

The data in this paper are collected and calculated by the Wenzhou Statistical Yearbook 2019 and the official websites of different districts and counties in Wenzhou. (Wenzhou Municipal Bureau of Statistics, 2019)

The calculation method is based on the indicator compilation methodology of the Guangdong-Hong Kong-Macau Greater Bay Area Institute, and every single indicator is calculated in a dimensionless way (Hu et al., 2016). The single indicator is represented by directly obtained data from each district and county of Wenzhou, and the utility value method is adopted in the dimensionless process. The range of utility values is [0,100]. Indicators are divided into positive indicators and reverse indicators. The positive indicator means that the higher the value is, the higher the indicator, such as the level of average wages, shown in formula (1). The

reverse indicator is the opposite, such as industrial wastewater emissions, shown in formula (2). (Li et al. ,2019)

$$Y_{ij} = \frac{x_{ij} - x_{\min}}{x_{\max} - x_{\min}} \times 100 \quad (1)$$

$$Y_{ij} = \frac{x_{\max} - x_{ij}}{x_{\max} - x_{\min}} \times 100 \quad (2)$$

In formula (1), the letter i represents secondary indicators, and the letter j represents each district and county of Wenzhou.  $x_{ij}$  represents the original data of indicator i in area j,  $x_{\max}$  represents the maximum value of indicator i,  $x_{\min}$  represents the minimum value of indicator i, and  $Y_{ij}$  represents the utility value of indicator i in area j. The utility value of the evaluation content under each secondary indicator is averaged to form the secondary indicator score. Then the business environment evaluation indicator of each district and county is calculated according to the secondary indicator score and indicator weight.

#### *Evaluation Results and the Comparative Analysis*

According to the data and calculation method, the standardized value and ranking of the business environment of each district and county in Wenzhou are obtained. The results showed that the score of Yueqing County (77.00 points) was significantly higher than that of other regions, followed by Ruian County (64.75 points). Generally speaking, at present, all districts and counties in Wenzhou are vigorously promoting the “streamline administration, delegate powers” reform to improve or optimize the business environment. However, due to the differences in regional development and location advantages, the improvement of the business environment in some areas is limited, resulting in a significant gap in the business environment between regions. The difference between the maximum value and the minimum value of the “hard business” environment is 45.96 points, and the difference between the “soft environment” is 75.64 points, which indicates that the “soft environment” has more significant operating space. Therefore, all regions in Wenzhou should strengthen the construction of the soft business environment to benefit more enterprises. The specific result is shown in the table2 below.

**Table2** Business environment evaluation results of Wenzhou in 2019

Regions	Business Environment		Hard Environment		Soft Environment	
	Standardized value	Ranking	Standardized value	Ranking	Standardized value	Ranking
Lucheng District	55.55	3	69.29	1	46.39	5
Longwan District	46.28	4	42.90	4	48.54	3
Ouhai District	43.50	5	38.90	5	46.56	4
Dongtou District	14.49	11	23.33	11	8.60	11
Ruian County	64.75	2	58.72	3	68.77	2
Yueqing County	77.00	1	66.16	2	84.23	1
Yongjia County	40.64	6	34.28	7	44.88	6
Pingyang County	29.64	8	34.02	8	26.72	8
Cangnan County	37.44	7	36.59	6	38.01	7
Wencheng County	18.89	10	28.32	10	12.59	9
Taishun County	19.64	9	31.29	9	11.88	10

#### **Findings**

It can be seen from the evaluation results that the business environment, hard business environment, and soft business environment are distributed in the same way, which means that an area with a good business environment will also get high scores of the other two. In 2019,



Yueqing ranked 1st in the business environment. In terms of hard business environment, Yueqing, as the region with the most significant number of A-share listed companies in Wenzhou, ranked 1st in all indicators such as the total volume of GDP and the number of industrial enterprises above the designated state size and the New fixed assets in the whole year. In terms of the soft business environment, Yueqing ranked 1st in both governmental efficiency and technological innovation. Yueqing has built a business environment at high speed and improved the governmental efficiency of services to become a pacesetter in leading the high-quality development of Wenzhou's business environment.

## Discussion

### *Vigorously Develop Competitive Industries and Promote the Coordinated Development of Districts and Counties*

Governments in Wenzhou should deepen the development of local competitive industries, cultivate and promote emerging industries, and maintain the regional brand advantages of the five major industries as electric and gases, accessories of automobile and motorcycle, clothing, shoes, pump, and valve, and accelerate the industrial transformation and upgrading. In addition, Dongtou District, Wencheng County, and Taishun County are ranked last three in the ranking of the business environment in Wenzhou. These three regions should accelerate the goal of building the district county complex, promoting the development of the tourism industry, and activating a beautiful economy.

### *Improve the efficiency of government service and continue to deepen the reform of "China Speed."*

The government should promote and implement decentralization reform sincerely, reduce institutional trading costs, simplify the approval process, and enhance cohesion among all examination and approval procedures to shorten examination and approval time. At the same time, the government should also strengthen post supervision and inspection. Relevant departments should support the implementation of work, innovate the way of administrative management, and advance "the Internet Plus Government Services initiative" with the help of the Zhejiang Government Service Network and other Internet platforms to improve public service capacity.

### *Improve the policy of talent introduction and encourage technological innovation*

To comprehensively improve the business environment, we should not stop at improving the efficiency of public services and ignore the deepening reforms in areas such as high-end talents and technological innovation. Today, attracting high-end talents and encouraging technological innovation has become an essential breakthrough for Wenzhou's urban development and transformation. Wenzhou has always been faced with the problem that it is challenging to introduce talents and keep them stay in Wenzhou, so governments at county levels should expand the development channels for skills, intensify efforts in such aspects as improving material benefits of talents, solving the problem in the placement of their spouses and the schooling of their children, and complete social security and other related issues, to provide guarantee for outstanding talents. In addition to introducing talents, the government and enterprises can also invest in encouraging existing employees to participate in the relevant professional training around the country and learn experience from others.

Therefore, the employees' professional ability will improve, and they can better serve the enterprises. Meanwhile, it is necessary to make full use of the talent resources of Wenzhou University City and encourage university graduates to stay and work in Wenzhou.

The government needs to invest more in science and education, increase spending in these two areas. We also should speed up the reform of scientific and technological systems, build excellent and interconnected platforms for innovation, promote interaction and communication of talents in different fields, and maximize the technology spillover effect among cities. To

further stimulate the vigor of the production-study-research-application and build a bridge for cooperation, the government needs to actively organize the tripartite collaboration among the government, enterprises, and scientific research institutions.

### Conclusion

This study provides a “two aspects, seven first-level indicators and 27 second-level indicators” business environment index system, which evaluates the business environment of four districts, two county-level cities, and five counties of Wenzhou. The evaluation provides essential implications for SMEs and the government, optimizing the city’s business environment and promoting its steady economic development.

### Acknowledgement

This paper was financially supported by the Department of Education of Zhejiang Province, project NO. FG2020050 and Wenzhou Science&Tecnology Bureau, project NO.R2020015.

### References

- Civelek, M., Ključnikov, A., Dobrovič, J., & Hudáková, M. (2016). A model of measurement of the quality of business environment in SME segment. *Journal of International Studies*,9(2),90-102.
- Hu,Y., Li, Q.H., Jiang, L.X.(2015). A study on the index system of the business environment in Guangdong province. Paper presented at *Lingnan economic forum and Guangdong social science academic annual meeting in China*.
- Li, Z.J., Zhang, S.G., Niu,Z.W.,& Liu, Q. (2021). Theoretical logic, comparative analysis, and the countermeasures of doing business assessment in Chinese cities. *Management World*,37(05):98-112.
- Li, Z.J., Zhang, S.G., Li, Y.F.,& Shan, S. (2019). The environmental evaluation of doing business in Chinese cities and related suggestions. *Jiangsu Social Sciences*,2, 30-42.
- Liu, Z.R. (2010). *Formation and operation mechanism and evaluation of Small and medium-sized enterprise service systems*. (Doctoral dissertation, Jinan University).
- Man, S., Wu, X.G.(2018). Comparative interpretation and enlightenment of business environment index system at home and abroad. *Journal of Statistics and Consultation*. 202(03):29-32.
- Möller, K., Nenonen, S., & Storbacka, K. (2020). Networks, ecosystems, fields, market systems? Making sense of the business environment. *Industrial Marketing Management*, 90, 380-399.
- Qiang, C. Z., Wang, H., & Xu, L. C. (2021). Ownership, enforcement, and the effects of the business environment. *Journal of Government and Economics*,2, 100007.
- Qin, C.(2018). *Research on the assessment of the business environment in Guangdong province*. (Master dissertation, South China University of Technology).
- Rodrik, D., Subramanian, A., & Trebbi, F. (2004). Institutions rule: the primacy of institutions over geography and integration in economic development. *Journal of economic growth*, 9(2), 131-165.
- Song, L.L., &He, C.X. (2018). The logic and path of China’s administrative reform from the perspective of optimizing business environment: based on the analysis of the world bank business environment indicator system. *Chinese Public Administration*,4,67-72.
- Stern, N., & Stern, N. H. (2002). *A strategy for development*. World Bank Publications.
- Vo, X. V., Nguyen, T. L. A., Luu, H. N., & Vu, K. T. (2020). Local business environment, domestic CEOs and firm performance in a transitional economy: Empirical evidence from Vietnam. *Economic Analysis and Policy*, 66, 236-249.

- Wenzhou Municipal Bureau of Statistics. (2019, December 4). *Wenzhou statistical yearbook 2019*. China Wenzhou Municipal People's Government. [http://wztjj.wenzhou.gov.cn/art/2019/12/4/art\\_1467318\\_40750306.html](http://wztjj.wenzhou.gov.cn/art/2019/12/4/art_1467318_40750306.html)
- World Bank. (2004). *World development report 2005: a better investment climate for everyone*. The World Bank.
- Xie, H.C.(2017, December 21). *Xi steers Chinese economy toward high-quality development*. Xinhua China News. [http://www.xinhuanet.com/english/2017-12/21/c\\_136841067.htm](http://www.xinhuanet.com/english/2017-12/21/c_136841067.htm)
- Xu, L. C. (2011). The effects of business environments on development: Surveying new firm-level evidence. *The World Bank Research Observer*, 26(2), 310-340.
- Yan, Z.K. (2019). *Study on the satisfaction and influencing factors of the business environment in districts and counties: based on the practice of Xiangshan county, Ningbo city*. (Doctoral dissertation, Zhengjiang University).
- Yang, T. (2015). Research on the construction of business environment evaluation index system: based on the comparative analysis of the four provinces of Shandong, Jiangsu, Zhejiang, and Guangdong. *Journal of Commercial Economics*, (13), 28-31.
- Yu, F., Shi, Y., & Wang, T. (2020). R&D investment and Chinese manufacturing SMEs' corporate social responsibility: The moderating role of regional innovative milieu. *Journal of Cleaner Production*, 258, 120840.
- Yuan, Z.M., Yu, X.J., Gu, H.S.,& Zhang, X.Q.(2018).A study on the measurement methods of county business environment evaluation indices. *Journal of Jiaxing University*, 030(004):105-110.
- Zhang, G.Y., & Lou, C.W. (2018). Research on the optimization business environment based on institutional embeddedness: a case study of Liaoning province. *Journal of Northeastern University(Social Science)*, 020(003), 277-283.
- Zhang, S.B., Kang, B.C., & Zhang, Z.X. (2020). Evaluation of doing business in Chinese provinces: indicator system and quantitative analysis. *Economic Management*, 04, 5-19.